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ABSTRACT

The purpose of this study was to examine the differences found in areas with high delinquency rates in relation to the ecological structure in Los Angeles County, California. Previous studies suggest that delinquency was the consequence of the availability of low cost housing found in deteriorating residential areas, and that the housing matched the meager resources of successive waves of low income migrants and immigrants. It was hypothesized that current neighborhood crime and delinquency rates have increased as a function of changes in the demographic, subcultural, and socioeconomic factors most directly related to the social processes of the community. Noted in the developmental process of delinquency was an increasing decline in those structural features common to enduring areas. It was also suggested that post-war changes in population movements have had the effect of dispersing delinquency areas outward from the older core of the city without respect to the initiating force of land use change. A summary of the results are included as appendices. (Author/JCD)

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ECOLOGICAL PROCESSES IN THE CREATION OF DELINQUENCY AREAS: AN UPDATE

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In the early literature on the ecology of delinquency areas, the historical process of their development in the American city was represented as an effect of the encroachment of industrial and commercial land use on residential areas that were adjacent to the core of the American city (Shaw and McKay, 1969; Schmid, 1969). The process was most clearly exemplified in these locations. But it was also in principle generalizable to any area subject to similar land use transformation. The development of areas of high official rates of delinquents, principally at or near the city's core, was then seen as a consequence of the availability there of the low cost of housing found in chronically deteriorating residential areas--housing that matched the meager resources of successive waves of low-income migrants from the rural regions of the U.S. and abroad.

However, in the light of recent changes in the ecological patterning of the American city, this account of the development of delinquency areas presents two problems. First, it represents delinquency areas as largely confined to inner city enclaves. This no longer conforms to current realities. Second, it provides minimal detail respecting the time involved changes in the

demographic, socioeconomic, and subcultural features of residential areas that functioned as determinants in the development of delinquency areas. Such detail has become important for both prediction and explanation in relation to the current distribution of delinquency areas in urban space.

With few exceptions, American cities no longer exhibit the growth pattern of the early years of this century. Then, the principal movement of population was from rural to urban areas. The principal migrating groups, largely rural in origins both from within the U.S. and from abroad consisted of and cultural resources needed for rapid adaptation to the industrial metropolis. The main movements of population now occur within metropolitan regions. In the post-war period of the 50s and 60s, there was was massive migration of the middle class to the suburbs. Their gradual evacuation of the expanded core of the city opened these areas to settlement by formerly segregated and impoverished ethnic populations. Their numbers in the evacuated regions of the city increased not only absolutely, but by the decade of the 70s were decisively increased proportionately (Duncan, et al., 1962; Van Arsdol and Schuerman, 1971).

In the face of this ecological transformation with its accelerating pace of change, the concept of the delinquency area also seems to require transformation. Where successive replacements of disadvantaged populations at one time affected principally the inner city neighborhoods that were long established as high rate delinquency areas, they now affect wider reaches of the metropolitan area. The concept of the delinquency

area can consequently no longer refer to the relatively fixed and circumscribed enclaves they once were. With changes in the ecological patterning of metropolitan regions, delinquency areas over the past several decades have increasingly moved into what was formerly alien territory. As a descriptive designation, it is necessary that the term now refer to urban neighborhoods at various stages of development as delinquency areas. Implicit here is the notion of an ecologically autonomous process of development in the creation of the relatively permanent or enduring high delinquency rate area.

In this paper we are reporting one effort to define these processes. The data are drawn from a larger study of the relationship between neighborhood deterioration and crime. The central hypothesis investigated in that study asserted that neighborhood crime and delinquency rates increased as a function not merely of change in neighborhood social structure, but of the velocity of change in the specific features of structure that are most directly related to the social control process. The study site selected was Los Angeles County. As a sun-belt, relatively newly developed metropolis, the choice offered two advantages. First, its relatively recent rapid growth has made the dynamics of ecological transformation more visible and accessible than they now are in the older declining cities. Second, detailed delinquency data geocoded to census tracts were available, extending over the 20-year period, 1950-1970. During this period, the county's population increased from 4.1 to 7.0 million.

In addition, the data of the study included 83 variables

descriptive of the land use, demographic, socioeconomic, and subcultural characteristics of the county's comparable 1142 census tracts at each of the three decennial time points of 1950, 1960, and 1970 (Figure 1).

Study procedures were designed to identify the delinquency areas of highest densities and rates of official delinquents in 1970 in order to examine possible differences among them in the relationship between ecological structure and measures of delinquency, and to retrospectively examine the changes in both since 1950. Census tracts were spatially aggregated to define subareas, or "neighborhoods" on the basis of similarity in their measures of density or concentration (number per square mile) of delinquents adjudicated for misdemeanor felony offenses in 1950, 1960, and 1970, as well as rates based on the age group at risk. The procedure required the development of a variance reduction clustering method which is a modification of the Geary Contiguity Ratio (Schuerman, 1979). Identified were 192 clusters of census tracts in Los Angeles County in 1970 that were shown to be statistically homogeneous in their delinquency measures. Each cluster was constituted by a spatially contiguous set of census tracts. Of these, the ten clusters with the highest delinquency measures in 1970 were selected for detailed analysis. While the cutoff point at the tenth highest may seem somewhat arbitrary, the declining gradient in the delinquency measure beyond the tenth was fairly abrupt, falling substantially below the mean for the metropolitan area. This top ten may be validly characterized as high delinquency rate areas, and exhibit a sufficiently wide range

of measures to warrant examination of differences in their ecological features and in the process of their development.

To obtain an overall perspective on relative differences among the ten areas, the analysis was initially concerned with three purely descriptive tasks. The first was to identify differences in delinquency measures among the ten clusters of highest concentration, or density, of youth adjudicated for prosecutable offenses. The second was to ascertain for each of the ten clusters its recency or longevity in that status. The third was to document the differences among these clusters in relation to differences in the character of their land use patterns, and the demographic, socioeconomic, and subcultural features of their populations as these changed through time.

Concentrations per square mile of adjudicated delinquents ranged from a high of 130 to a low of approximately 40, and rates from 5.2 per 100 youth 10-17 years of age to 2.4 (Table 1). To determine when during the 1950-1970 period these 1970 areal cohorts attained the status of a delinquency area, delinquency measures for each cluster in both 1960 and 1950 were examined. Using the same contiguity measuring procedure, we clustered census tracts separately on the 1950 and the 1960 delinquency measures. Table 2 shows the percentage of census tracts in the 1970 high delinquency clusters that were included in the seven 1960 and the seven 1950 designated high delinquency concentration clusters. When the 1970 clusters are grouped by a simple measure of a 20-year progression in becoming delinquency areas, three major groups are discernible (Table 3). These groups may be said to

represent three stages in the development of delinquency areas. For example, clusters labeled "enduring" are shown to have been delinquency areas at least since 1950; the second group of clusters designated as "emerging" have had no more than a ten-year history as a delinquency area; and the third, the "transitional" group of clusters as far back as 1950 exhibited the initial signs of becoming a high rate delinquency area.

Turning to Table 4, we can see the main changes in features of neighborhood social structure with movement from the emerging to the enduring stage of development as delinquency areas. To reflect the shifts in these cluster groups over a 20-year period in the ecology of the metropolis, a unit share measure was adopted. This measure expresses the proportion in a subarea of any given attribute of a region's land use or population dynamics. Twenty-year unit share trends contrast sharply for the 1970 emerging and enduring areas. Between 1950 and 1970, in both the emerging and enduring delinquency areas, there were sharp declines in population, owner housing, labor force in skilled occupations, and in population with advanced education. But in each of these respects, as well as in others, the decline was very much sharper in the enduring areas, suggesting a process of cumulative loss in these elements of neighborhood social structure. On the other hand, the unit share of the county's residential mobility was up much more sharply in the emerging than in the enduring areas, and the unit share trends for a number of subculture variables moved in opposite directions. Areas at the earliest stage of development as delinquency areas underwent a very sharp increase

in unit share of minority populations, in non-white females in the labor force, and in non-whites with advanced education. But in the delinquency areas already established by 1950, there were unit share declines ranging from some 60 to 90 percent in these features. During this period, however, the trend in unit share of youth adjudicated for prosecutable offenses moved sharply upward in both the emerging and the transitional stage delinquency areas, but declined moderately in the enduring areas, despite the fact that the rates of delinquents in the latter were the highest.

To summarize these descriptive materials, the notable features in unit share trends were, first, that in 1970 features of social structure usually highly associated with long established delinquency areas also characterized in slightly more moderate form the newly emerging delinquency areas. Second, highlighted in the developmental process is the very great increase at its inception in unit share of a number of structural features whose relative prevalence in the enduring areas has gone into decline. It is as though the share in these items of the county's social ecology has migrated to areas at the initial stage of their development as delinquency areas.

The descriptive data suggest no more than that the standard ecological processes of selection, segregation, and specialization, as set forth in the early literature, are indeed involved in the creation of delinquency areas. But so far as they do not come into existence instantaneously, it becomes important to understand in detail the specific patterns of sequence between changes in the variables of neighborhood social structure and

changes in the delinquency measure. An account of such sequences is particularly needed in the light of current patterns of population movement that continually open new areas of the city to development as delinquency areas.

This issue was addressed by two forms of time series analysis. First, using lagged multivariate regression analysis, the 1960 delinquency measure was correlated with the 1950 measures of land use, demographic, socioeconomic, and subcultural variables; and 1970 delinquency was correlated with the same structural variables in 1960. The procedure was designed to answer the question: prior changes in which structural variables principally accounted for what degree of later changes in the delinquency measure?

Presented in Table 5 are the statistically significant (.05) cross-lagged multiple regression coefficients relating structural variables of the prior decade to delinquency in the later decade for census tract clusters at each stage of development in 1970, and the associated proportion of explained variance in the delinquency measure. To be noted first is something of a cumulative impact of structural variables with the passage of time, irrespective of stage of development. In each of the cluster groups, neighborhood conditions in 1950 accounted for less than half the variance in the 1960 delinquency measure. But in a sharp escalation, structural variables in 1960 accounted for almost all the variance in delinquency in 1970 in the emerging and enduring stage areas, and three-quarters of the variance in the transitional stage areas. Second, the significant structural

variables specific to each stage at each of the time periods is highly hetergeneous. In the cluster that first emerged as a delinquency area in 1970, the single socioeconomic variable of overcrowded housing in 1950 accounted for about half the variance of the 1960 delinquency measure. By 1960, one demographic variable (residential mobility), two socioeconomic variables (housing turnover and median rent), and two subculture variables (Black population and non-white females in the labor force) explained 92 percent of the variance of the 1970 delinquency measure. Similar shifts in the specific sets of variables between the two lagged relationships characterized the 1970 enduring and transitional delinquency areas.

These shifts suggest that as delinquency areas mature, their characterizing structural elements are likely to differ in composition at different stages of their development. However, in the simple count of variables classified by type, presented in Table 6, there is, among variables with significant lagged regression coefficients, a discernible trend suggesting two possibilities. The first is that after 1950, changes in land use no longer have the impact on the development of delinquency areas they once may have had. Second, as delinquency areas develop, structural effects shift from the demographic to the socioeconomic to the subcultural variables. Each prior class of variables would appear to function as a precondition for the emergence of each subsequent class.

A second form of time series analysis was concerned with the further question: what is the comparative velocity of prior change

in structural variables and the velocity of subsequent change in the delinquency measure? As noted earlier, the variable of change velocity rather than mere change itself was hypothesized as critical in the more general study on which this report is based.

A measure particularly appropriate to this issue is what has been called the correlation of deviational change (Myers, 1964; Duncan and Cuzzort, 1958). The procedure measures differences in relative rates of change by the deviation of a value at one point in time from the value predicted by the variable from a previous point in time. In effect, when any set of such deviations are regressed on another set, the resulting correlation expresses the comparative velocity of change in two variables.

For purposes of this limited presentation, only a shortened form of the method is presented. Again, in a multiple regression framework the residuals obtained from the correlation of the 1950 with the 1970 structural variables were regressed on the residuals obtained from the correlation of the 1950 with the 1970 delinquency measure. Assumed here is that the crucial structural variables which drive up delinquency rates as neighborhoods move toward the status of enduring delinquency areas are those whose change rates most closely approximate the velocity of change in the delinquency measure.

For the ten clusters with highest concentrations of adjudicated delinquents in 1970, deviational change in four structural variables (two demographic and two subcultural) accounted for 65 percent of the change rate in the delinquency measure (Table 7). However, when the ten clusters are grouped

according to to their developmental levels in 1970, the specific sets of structural variables are quite differently constituted within the various stages (Table 8). To be noted is the fact that, whatever the structural features of the emerging delinquency areas in 1970, their change rates between 1950 and 1970 accounted for an impressive 85 percent of the change rate in their delinquency measure. The two sets of change rates were substantially less synchronous in clusters at the more advanced stages of development. This difference may indicate that as delinquency areas mature, changes in the social composition of neighborhoods no longer have the immediacy of impact on the delinquency measure that characterizes the early stage areas. The suggestion is, that with time, delinquent activity in areas undergoing development as delinquency areas may stabilize at a level determined by the availability of criminal opportunity and by the increasingly fixed character of their demographic, socioeconomic, and subcultural composition.

As to difference between stages of development in the composition of structural variables, most of those in the emerging areas whose change rates account for changes in the delinquency measure suggest that during the preceding two decades only the reduction of owner occupied housing served as a leading indicator of things to come. In the transitional stage clusters, change in the demographic variable of youth dependency makes its appearance with a large and positive regression coefficient, as does the density of Anglo population with a substantial negative coefficient. In clusters that reached the enduring stage by 1970,

it was the change rate in only the two demographic variables of youth dependency and residential mobility over the preceding 20 years that now account for whatever variance in change in the delinquency measure that may be explained by structural variables.

In conclusion, we must note that this account of the development of delinquency areas corresponds to the common experience of the contemporary urban dweller. But we hope here to have evaded the charge of documenting the familiar by this effort to relate the altered dynamics in the formation of delinquency areas to recent basic alterations in the ecological patterning of the urban metropolis. To summarize briefly, post-war changes in population movements have had the effect, essentially, of dispersing delinquency areas outward from the older core of the city without respect to the initiating force of land use change. But they do not march across the urban landscape as fully evolved high rate areas. A more fitting metaphor would picture delinquency areas as first seeded by early changes in the demographic and socioeconomic features of neighborhoods, to become fully mature as subcultural enclaves in the course of a decades long cycle.

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Figure 1. Neighborhood Structural Dimensions, Variables, and Measures

I.	**Land Use Variables**	
	A. Concentration	Measures
	1. Owner housing	Owner occupied housing/sq.mi.
	2. Rental housing	Renter occupied housing/sq.mi.
	3. Residential dwellings	Single units/sq.mi.
	4. Multiplex dwellings	2 to 10 units/sq.mi.
	5. Apartment dwellings	11 or more units/sq.mi.
	6. Commercial activity	(Number of commercial + number of business parcels)/sq.mi.
	7. Industrial activity	(Number of industrial parcels)/sq.mi.
	8. Open land	(Vacant + rural farm parcels)/sq.mi.
	9. Traffic generators	(Parcels with buildings over 25,000 sq.ft)/sq.mi.
	B. Distribution	
	10. Owner housing	Owner/total occupied housing *100
	11. Rental housing	Rental/total occupied housing *100
	12. Residential dwelling	Single units/total housing *100
	13. Multiplex dwellings	2 to 10 units/total housing *100
	14. Apartment dwellings	11 or more units/total housing *100
	15. Commercial activity	(Number of commercial + number of business parcels)/total number of parcels *100
	16. Industrial activity	(Number of industrial parcels)/total number parcels *100
	17. Open land use	(Vacant + rural farm parcels)/total number of parcels *100
	18. Traffic generators	(Parcels with building over 25,000 sq.ft.)/total number of parcels *100
	19. Index of household stability	Renter occupied housing/owner occupied housing

20. Spansur females in labor force (8)	(Spansur females in civilian labor force)/ Spansur females 14 yrs. old and older *100
21. Anglo females in labor force	(Anglo females in civilian labor force)/ Anglo females 14 yrs. old and older *100
22. Non-White population with advanced education	Non-White adults with 4 or more yrs. college/ Non-White population 25 yrs. old and older *100
23. Spansur population with advanced education	Spansur adults with 4 or more yrs. college/ Spansur population 25 yrs. old and older *100
24. Anglo population with advanced education	Anglo adult with 4 or more yrs. /Anglo adult population 25 yrs. old and older *100
25. Non-White fertility ratio	Less than 5 yrs. non-White/15-44 yrs. non-White females *100
26. Spansur fertility ratio	Less than 5 yrs. Spansur/15-44 yrs. Spansur females *100
27. Anglo fertility ratio	Less than 5 yrs. Anglo/15-44 yrs. Anglo females *100
28. Non-White/Anglo population ratio	Black/Anglo *100
29. Spansur/Anglo population ratio	Spansur/Anglo *100
30. Non-White/Spansur population ratio	Black/Spansur *100
31. Non-White female/non-White male labor force ratio	Non-White females in civilian labor force/ non-White males in civilian labor *100
32. Spansur female/Spansur male labor force	Spansur females in civilian labor force/ Spansur males in civilian labor force *100
33. Anglo female/Anglo male	Anglo females in civilian labor force/ Anglo males in civilian labor force *100

II. Demographic Variables

		Measures
A.	Concentration	
1.	Population	Total population/sq.mi.
2.	Unrelated Individuals	(Number of unrelated + number of primary individuals /sq.mi.
3.	Non-intact individuals	(Widowed + divorced)/sq.mi
4.	Residential stability (1)	Population living in same house for at least a year/sq.mi.
5.	Residential mobility (1,2)	(Total population - population living in same house for at least a year/sq.mi.
B.	Distribution	
6.	Unrelated individuals	(Number of unrelated + number of primary individuals) /14 years and older *100
7.	Non-intact families	(Widowed + divorced)/14 years and older *100
8.	Residential stability (2)	Population living in same house for at least a year/ total population *100
9.	Youth dependency	0-17 age/18-64 age
10.	Aged dependency	65 and older/18-64 age
11.	Average Age	Median age

III. Socioeconomic Variables

		Measures
A.	Concentration	
1.	Professional occupations	(Prof., tech., mgmt., adm.) /sq.mi.
2.	Skilled occupations	(Sales, clerical, craftsmen, and kindred workers)/ sq.mi.
3.	Semi-skilled and unskilled laborers	(Operatives, laborers, service workers, private household workers)/sq. mi.
4.	Unemployment	Unemployed/sq.mi.
5.	Population with advanced education	25 years and older with 4 or more years college/ sq.mi.
6.	Housing lacking basic plumbing (3)	Occupied housing lacking plumbing/sq.mi.
7.	Housing with overcrowded conditions	Occupied housing with more than one person per room/sq.mi.
8.	Housing turnover (4)	(Occupied housing for sale and rent)/sq.mi.
B.	Distribution	
9.	Professional occupations	(Prof., tech., mgmt., adm.) /14 yrs. and older in labor force *100
10.	Skilled occupations	(Sales, clerical, craftsmen, and kindred workers)/ 14 yrs. and older in labor force *100
11.	Semi-skilled and unskilled laborers	(Operatives, laborers, service workers, private household workers)/14 yrs. and older in labor force *100
12.	Unemployment	Unemployed/14 yrs. and older in labor force *100
13.	Population with advanced education	25 yrs. and older with 4 or more yrs. college/ persons 25 yrs. and older *100
14.	Housing lacking basic plumbing (3)	Occupied housing lacking plumbing/all occupied housing *100

15.	Housing with overcrowded conditions (5)	(Occupied housing with more than one person per room)/all occupied housing *100
16.	Housing turnover (4)	(Occupied housing for sale or rent)/total occupied housing *100
17.	Average family income	Median income of family and unrelated individuals
18.	Average home value	Median value of total housing
19.	Average rent	Median contract rent
20.	Average education	Median education for persons 25 years and older

IV. Subculture Variables	Measures
A. Concentration	
1. Status offenses	Juvenile status delinquency/sq.mi.
2. Black population	Black/sq.mi.
3. Spansur population	Spansur/sq.mi.
4. Anglo population (6)	Anglo/sq.mi.
5. Non-White all population	Non-White/sq.mi.
6. Non-White females in civilian labor force	Non-White females in civililan labor force/sq. mi.
7. Spansur females in civilian labor force	Spansur females in civilian labor force/sq.mi.
8. Anglo females in civilian labor force	Anglo females in civilian labor force/sq.mi.
9. Non-White advanced education	Non-White adults with 4 or more years of college/ sq.mi.
10. Spansur advanced education	Spansur adults with 4 or more years of college/ sq.mi.
11. Anglo advanced education	Anglo adults with 4 or more years of college/ sq.mi.
12. Mexican foreign born (7)	Foreign born in Mexico/sq.mi.
B. Distribution	
13. Mexican foreign born (7)	Foreign born in Mexico/total population *100
14. Status offenses	Juvenile status delinquency cases/age 10-17 *100
15. Black population	Black/total population *100
16. Spansur population	Spansur/total population *100
17. Anglo population	Anglo/total population *100
18. Non-White population	Non-White population/total population *100
19. Non-White females in labor force	(Non-White females in civilian labor force)/ non-White females 14 yrs. old and older *100

V. Criminal Activity Variables

		Measures
A.	Concentration	
1.	Juvenile criminals	Juvenile prosecutable crimes/sq.mi.
2.	Juvenile crimes against property	Juvenile crimes against property/sq.mi.
3.	Juvenile crimes against persons@	Juvenile crimes against persons/sq.mi.
B.	Distribution	
4.	Juvenile crimes	Juvenile crimes against persons/10-17 yrs *100
5.	Juvenile crimes against property	Juvenile property crimes/10-17 yrs *100
6.	Juvenile criminals	Juvenile prosecutable crimes/10-17 years *100

Notes:

(1) In 1950, population lived in same house for more than one year.
In 1960, population lived in same house five years earlier.
In 1970, population moved into unit before 1969.

(2) 1950, 1960 total population is the population age 1 +
1970, total population is the total population

(3) 1950, housing lacking plumbing includes no private bath and/or no plumbing
1960, housing lacking plumbing includes no private toilet or bath or water
1970, housing lacking plumbing includes no hot water, cold water, toilet, and/or bathing facilities used by occupants in another unit

(4) 1950, data not available to compute variable
1960 and 1970 occupied housing for sale and rent is total housing for sale and rent

(5) 1950, all occupied housing is the number of units reporting persons per room
1960 and 1970 all occupied housing is total occupied housing

(6) 1950 and 1960 Anglo equals total population - non-White - Spanish surname
1970, Anglo equals White - (total - White) - Spanish surname

(7) 1960, foreign born in Mexico is born in Mexico with Spanish Surname

(8) 1970 Spanish surname females 16 yrs. old and older

Table 1. Square Mile Concentration and Rate of Adjudicated Delinquents, Ten Highest Concentration Clusters,[2] Los Angeles County, 1970[1]

	Concentration		Rate	
Cluster	$\bar{X}$	σ^2	$\bar{X}$	σ^2
1	130.3	88.6	5.2	1.8
2	74.4	52.1	2.4	0.9
3	67.3	68.8	3.1	1.8
4	86.1	15.4	4.2	1.5
5	99.6	26.1	4.3	0.8
6	84.3	37.6	3.9	1.3
7	50.9	54.3	2.4	1.9
8	48.1	38.0	3.2	1.4
9	50.8	32.0	2.5	1.2
10	39.5	28.8	2.4	1.1
$\bar{X}$	73.1		3.4[3]	

[1]Adjudicated on complaints prosecutable as misdemeanor and felony offenses at adult level.

[2]Clusters 11-20 mean concentration: 29.4

[3]Clusters 11-20 mean rate: 2.5

Table 2. Percent of Tracts in Ten Highest Delinquency Density Clusters, 1970, Present in Highest Delinquency Density Clusters in 1960 and 1950

Ten 1970 Highest Delinquent Clusters	Number of Tracts	Percent of 1970 Tracts in 1960	Percent of 1970 Tracts in 1950
1	48	95.8	97.9
2	13	76.9	76.9
3	10	90.0	0.0
4	32	100.0	18.8
5	10	100.0	40.0
6	27	70.4	29.6
7	7	100.0	0.0
8	9	44.4	0.0
9	15	80.0	80.0
10	43	76.7	25.6

Table 3. Ten Highest Delinquency Clusters, 1970, by Status as Delinquency Areas in 1960 and 1950

Clusters	Number of Tracts	Percent of 1970 Tracts in 1960	Percent of 1970 Tracts in 1950	Weighted Mean Rate of Prosecutable Offenses, 1970
Enduring				
1	48	9.58 [illegible]	97.9	
2	13	76.9	76.9	
9	15	80.0	80.0	
Mean		84.2	84.9	4.2
Transitional				
4	32	100.0	18.8	
5	10	100.0	40.0	
6	27	70.4	29.6	
10	43	76.7	25.6	
Mean		85.8	28.5	3.4
Emerging				
3	10	90.0	0.0	
7	7	100.0	0.0	
8	9	44.4	0.0	
Mean		78.1	0.0	2.9

Table 4. Percent Change in Mean Unit Share, 1950-1970, Selected Delinquency and Structural Variables by Stages of Development as Delinquency Areas, 1970 Areal Cohorts, Los Angeles County

Variables	Emerging	Transitional	Enduring
Crime			
Prosecutable Juv. Offenses	71.4	88.4	- 4.9
Property Offenses	60.8	104.0	45.6
Person Offenses	1029.3	162.7	57.4
Land Use			
Owner Occ. Housing	-33.7	2.4	-51.3
Renter Occ. Housing	5.0	-15.2	-42.6
Single Units	-27.1	- 0.1	-30.0
Multiplex Housing	2.7	-15.9	-28.9
Apartment Housing	1.7	-31.6	-64.5
Commercial Parcels	-14.3	-13.0	-13.3
Industrial Parcels	-28.5	11.3	-27.1
Traffic Generators	- 0.4	61.8	-51.0
Demographic			
Total Population	-21.3	1.5	-43.7
Unrelated Individuals	34.4	-17.6	-49.0
Widowed & Divorced	4.1	-15.1	-41.7
Residential Stability	-27.1	- 4.1	-44.3
Residential Mobility	240.3	268.3	110.7
Socioeconomic			
Professonial Occupations	-25.2	-24.7	-71.0
Skilled Occupations	-23.2	-20.0	-64.3
Semi & Unskilled Occupation	4.0	9.6	-58.3
Unemployment	6.0	11.8	-51.1
Population Advanced Edu.	-15.1	-32.6	-76.0
Housing lack Plumbing	15.0	-8.8	-53.3
Housing Overcrowded	12.5	37.3	-26.3
Housing Turnover[1]	- 3.7	32.9	38.4
Subculture			
Black Population	540.0	164.3	-59.1
Hispanic Population[2]	426.6	14.8	-64.5
Anglo Population	-41.1	-35.0	-81.5
Non-White Fem/Lab. Force	733.9	84.7	-74.1
Hispanic Fem/Lab. Force	482.8	-12.6	-69.7
Anglo Fem./Lab. Force	-31.0	-43.0	-89.1
Non-White Advanced Edu.	2268.4	-35.6	-90.0
Hispanic Advanced Edu.	1581.5	-58.5	-85.4
Anglo Advanced Edu.	-29.3	-46.2	-89.9
Mexican Foreign Born	163.9	- 8.5	-41.1
Status Offenses	66.2	26.1	-22.2

[1]1960-1970 trend; 1950 data unavailable

[2]Principally of Mexican background

Table 5. Lagged Multiple Regression Coefficients (.05) and Explained Variance (R^2), Structural Variables with Delinquency Dependent, 1950-1960 and 1960-1970, by Stages of Development as Delinquency areas, 1970 Area Cohorts, Los Angeles County

	1950-1960		1960-1970	
Stage	Variable	Reg. Coeff.	Variable	Reg. Coeff.
Emerging	Overcrowded Housing	.71	Black Pop/sq.mi.	1.25
			Non-Wh.Fem.Lab.Force	-.77
			Residential Mobility	.56
			Housing Turnover	-.43
			Median Rent	-.25
R^2		.48		.92
Transitional	Widowed & Divorced	.59	Renter/Owner Ratio	-.68
	Hsg.Lack.Plumbing	-.39	Semi- & Unskilled Occu.	.55
	Median Home Value	-.38	Median Family Income	-.30
	Hispanic Adv.Edu.	-.32	Housing Turnover	.29
	Hispanic Pop/sq.mi.	.26	Overcrowded Housing	.21
	Non-Wh.Fem.Lab.Force	.19		
R^2		.40		.76
Enduring	Hispanic/Anglo Pop.Ratio	.72	Anglo Pop/sq.mi.	1.01
	Median Rent	-.46	Non-Wh.Fem.Lab.Force	-.53
	Hispanic Adv.Edu.	-.46	Youth Dependency	.22
	Hsg.Lack.Plumbing	-.27	Anglo Fem.Lab.Force	-.18
			Industrial Parcels	-.13
			Status Offenses	.11
R^2		.41		.92

Table 6. Number of Variables with Significant Lagged Regression Coefficients, 1950-1960 and 1960-1970, Neighborhood Structure and Delinquency, by Classes of Variables, Los Angeles County

	1950-1960 Stages			1960-1970 Stages		
	Emerging	Transitional	Enduring	Emerging	Transitional	Enduring
Land Use					1	1
Demographic		1		1		1
Socioeconomic	1	2	2	2	4	
Subculture		3	2	2		4

Table 7. Lagged Multiple Regression Coefficients and Explained Variance (R^2 Adjusted) of Deviational Change, 1950-1970 Structural Variables with 1950-1970 Delinquency Measure, Ten Highest Delinquency Census Tract Clusters, 1970 Areal Cohorts, Los Angeles County

Variable	Regression Coefficient
Youth Dependency	.80
Anglo Population/sq.mi.	-.40
Anglo Females in Labor Force	.32
Residential Mobility	.14
R^2	.65

Table 8. Lagged Multiple Regression Coefficients and Explained Variance (R^2 Adjusted) of Deviational Change, 1950-1970 Structural Variables with 1950-1970 Delinquency Measure, by Stages of Development as Delinquency Areas, 1970 Areal Cohorts, Los Angeles County

Stages of Development					
Emerging		Transitional		Enduring	
Variable	Reg. Coeff.	Variable	Reg. Coeff.	Variable	Reg. Coeff.
Residential Stability	.70	Youth Dependency	.82	Youth Dependence	.72
Owner Occupied Housing	-.28	Anglo Population/sq.mi.	-.59	Residential Mobility	.22
Anglo Advance Education	.22	Anglo Females in Labor Force	.34	R^2	.71
Multiplex Dwellings	-.17	Residential Stability	.26		
R^2	.85	Open Land	.22		
		R^2	.65		